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State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

March 4, 2015

David McMullin C.S. Mining LLC. P.O. Box 608 Milford, Utah 84751

Subject: Review of Amended Notice of Intention to Commence Large Mining Operations (Notice), C.S.

Mining LLC., Hidden Treasure Mine, M/001/0067, Beaver County, Utah

Dear Mr. McMullin:

The Division has completed a review of the referenced Notice of Intention to Commence Large Mining Operations (Notice) which was received January 28, 2015. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. Please address only those items requested in the attached technical review by <u>sending replacement pages</u> using **redline and strikeout** text. After the notice is determined technically complete, the Division will need two clean copies of the complete and corrected plan. Upon final approval, both copies will be stamped approved, and one will be returned.

The Division's review of the content of the recently-amended Notice that is unrelated to the Maria and Niagara Hill pits and dumps is not considered complete. Reviews of the reclamation cost calculations for surety determination are also ongoing. An amendment responding to the italicized comments is not required for approval of the Maria pit expansion and the Niagara Hill pit construction, but such an amendment addressing the complete review will need to be addressed by June 1, 2015.

The Division will suspend further review receiving a response to this review. Please contact Peter Brinton at 801-538-5258 or me at 801-538-5261 if you have questions about these comments or if you would like to schedule a meeting to discuss them. Thank you for your cooperation in completing this permitting action.

Sincerely,

Paul B. Baker

Minerals Program Manager

PBB:pnb:mj
Attachment: Review

cc: Ed Ginouves, BLM-Cedar City (UTU-82071) (eginouve@blm.gov)

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FIRST REVIEW OF AMENDED NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

C.S. Mining LLC Hidden Treasure Mine M/001/0067 March 4, 2015

A response to italicized comments is not necessary for approval of Maria expansion and Niagara Hill pit construction

General Comments:

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
1	General	Submittal should be formatted to easily incorporate additional revisions and amendments.	Andread Control of Control o	
2	General	The Division may have additional comments based on the response to this review.		
3	General	Any maps or pages from the text that are modified should also be updated to represent the present condition of the operations shown or discussed, with some exceptions.	pnb	
4	General	A number of sections of the Notice do not address issues related to the new pits and dumps or expansions. Some examples are included as comments below. Modify the Notice accordingly. Some sections may be appropriate to generalize, and to discuss specific pits or areas where one pit or waste dump is an exception.	pnb	
And the second s		Both the Maria and Niagara pits should be included in the text of each applicable section.	lah	

R647-4-105 - Maps, Drawings & Photographs

General Man Comments

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
5	General	Please modify existing maps and provide replacement copies, rather than adding new figures that cover the same areas (such as Figures 11d and 11e). For example, maps showing the Niagara Hill dumps and Bawana backfill (Figures 11d and 11e), if stamped approved, would conflict with the current maps (Figures $11a - 11c$).	pnb	
6	Multiple Figures	Figures should show existing conditions (at least a boundary), and the date of existing disturbances. For example, the Bawana dumps have already been extended to nearly the permit boundary line, and the magnetite stockpiles have been moved. If existing, permitted conditions have changed in the very recent past (making updates difficult), as-builts will not be required immediately.	pnb	
7	Multiple Figures	Make a completed legend, and include all symbols that are on each map in the legend. Use bar scales on all drawings and figures.	lah	
		For example, the legends in Figures 10a and 10b don't show the ephemeral stream (usually dashed) and the reclamation hatching, respectively.	pnb	

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Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
8	Multiple Figures	The previously-shown gaps between patented claims (BLM lands) should be shown in each of the permitted areas. The maps need to properly show land ownership.	pnb	
9	General	Most or all maps have general editing problems that should be fixed. It is recommended that all maps be reviewed and that obvious fixes be made to improve clarity.	pnb	
10	Multiple Figures	Add notes to maps referring to permitted exploration where associated disturbance is visible on aerial photographs (or will be as exploration progresses).	pnb	

105.2 - Surface facilities map

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
11	Figures 10a, 10b	Some of the flat areas on the older Maria dumps are being utilized by current mining operations, and the disturbance should be included in the bonded disturbance area and the hatching removed.	pnb	
12	Figures 10a, 10b	Extend the bonded boundary to include the road onto the topsoil pile just west of the Hidden Treasure pit, and update the acres table.	pnb	
13	Figures 10a, 10b	 The following items should be addressed: Surface ownership text and survey section lines and numbers should be re-added to the figure. The location and treatment of pre-law shafts should be shown if within the reclamation treatment boundary. The scale or alignment should allow the entire ore stockpile on SITLA to be shown. Contour elevation text should be slightly larger in some cases. Consistent with the text, add a note about the 4 foot safety berm around the pit. The Niagara Hill haul road should connect to the primary haul road. 	pnb	
14	Figure 10a	Clean up the hatching of the previous disturbance on the southeast end of the pit, and remove duplicate text.	pnb	
15	Figure 10b	Some of the old Maria dumps need to be identified as previously disturbed (not bonded).	pnb	
16	Figure 10b, etc.	The reclamation treatments for the pit haul roads of the Hidden Treasure and Maria pits should be identified as ripped and seeded, consistent with the reclamation plan.	pnb	
17	Figures 11d, 11f	 The following items should be addressed: Surface ownership text and survey section lines and numbers should be re-added to the figure. The scale or alignment should allow the entire low-grade ore stockpiles to be shown, as with 11f, Contour elevation text should be slightly larger in some cases. 	pnb	

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Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review
18	Figure 11d, 11f	 The following need to be shown: the boundary of the existing disturbances, including the pre-stripped areas (as-builts of dumps is also acceptable), the ultimate Bawana pit, the existing Bawana extension haul road, which apparently should connect to the Niagara Hill area, the Niagara Hill pit's in-pit haul road, if available, the revised topsoil stockpile location (previously shown southwest of Bawana pit), the status of the old dumps south of the Bawana pit (unless as-builts and/or plans cover them), the map and legend need to be consistent, and the scales of the two maps should ideally be the same. 	pnb	
19	Figure 11d	In plan view, the section K-K' line does not traverse the top of the existing Bawana waste dump as depicted in the K-K' cross section on Figure 11e.	mpb	
20	Figure 11d	In plan view, section M-M' doesn't extend across Niagara Hill waste dump as depicted in the corresponding section on Figure 11e.	mpb	
21	Figure 11f	The reclamation treatments for the pit haul roads and pit bottom of the Niagara Hill pit should be identified as ripped and seeded, consistent with the reclamation plan.	pnb	
22	Figure 11f	The reclamation plan requires the Niagara Hill haul road to be regraded, and revegetation standards apply. Identify the reclamation treatment for the side slopes of the road.	pnb	
23	Figure 11f	The note identifying the Niagara Hill pit contour lines as current topography needs to be modified or deleted, as well as the 5000-foot length of the highwall berm, it is assumed.	pnb	
24	Figure 13b	The reclamation treatment for the Sunrise pit haul roads should be re-added, consistent with the reclamation plan. Also, treatment for the haul road onto the dump is not shown.	pnb	
25	Figures 16a, 16b	Since the same information is visible on Figures 10a and 10b, these figures are not needed.	pnb	M. T.
26	Figure 1	This figure hasn't been updated to show either current or planned conditions (such as the road from the highway to the mill and to the Rocky Range area from the south). If desired, this figure could also be modified to remove detail shown on other maps.	pnb	
27	Figure 2a	Clearly identify the office and associated facilities shown south of the acid storage.	pnb	
28		New facilities associated with the acid leaching or acid storage need to be identified.	pnb	
29	Multiple Figures	Identify the boundaries of the regraded Mary I disturbance.	pnb	
30	Multiple figures	Identify the active disturbance on top of the OK ore stockpile and the OK dumps, and note the location of the boneyard.	pnb	
31	Multiple Figures	Identify the existing disturbances and the pre-raise impoundment boundaries of the ITDF.	pnb	***************************************
32	Multiple Figures	The rip rap diversion appears to divert stormwater into the topsoil stockpile. Berms should probably be shown on Figure 15a, if not other ITDF figures.	pnb	
33	Figure 17	Update this figure, consistent with the requested changes.	pnb	
34	TOTAL CONTRACTOR OF THE PARTY O	Show the main road to the mine from the truck shop.	pnb	

105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)

Comment Sheet/Page/ Map/Table # Comments	Initials	Review Action	Principal Company
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Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
35	All Cross sections	The Division requests that you be consistent and include the following: All slopes need to be labeled, such as "Max 2H:1V." Use consistent colors in cross sections, such as original ground surface always shown as green and mined cut and fills shown red. Please show the three critical surfaces on all cross sections 1) original ground surface, 2) surface during mining and 3) reclaimed surface. Use bar scales on all drawings and figures.	lah	
		It is strongly preferred (not required) that cross-sections have the same scale vertically as horizontally. Figure 10c is not required if section lines are shown on other plan views (like Figure 10a). Cross-sections are ideally drawn through the pits or dumps at one of their maximum dimensions (e.g. depth or height) and approximately parallel to slope.	pnb	
36	Figure 10c	Identify points E & E' and F & F' on the ends of the cross section grids. (Section E-E' looks reversed.) Section F-F' does not cut through the existing waste dump in plan view. The east end of E-E' is inconsistent with the plan view of the dumps on Fig. 10a.	mpb	
37	Figure 11e	Identify section ID points at ends of cross section grids.	mpb	
38	Figure 13a	Identify section ID points at ends of cross section grids.	mpb	
39	General	Cross-sections for pits with highwalls steeper than 45 degrees will be required, consistent with R647-4-105.3.	pnb	
40	Fig 15b	Diversion berms and other runoff control features should be shown for the new pits, dumps, and haul road.	pnb	

R647-4-106 - Operation Plan

General Operation Comments

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
41	Page ii, Omission	At the final submittal, provide the revised table of contents and lists of tables and figures.	pnb	
42	Page 2	A paragraph beginning with "During preparation" has been omitted. Replace the approved text.	pnb	
43	Page 2	The approved text discussing the 2013 revision should still refer to the revision to be consistent.	pnb	
44	Omission	Please include discussion and bonding of the existing truck shop facilities, truck shop well, guardhouse, etc.	pnb	

106.2 - Type of operations - mining method, onsite processing, deleterious or acid-forming materials

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
45		Figures show a different shaped and larger disturbance footprint for the Hidden Treasure dump than the current approved Notice. Unless this is in error, indicate in the text that the Hidden Treasure dump will be expanded, and by what acreage, consistent with the map.	pnb	

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Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review
46	Page 8, para 3	Remove the first sentence of the paragraph, "The Hidden Treasure disturbances will be reclaimed" The requested variance is inconsistent with the reclamation standards of R647-4-111. Either way, discussion of reclamation belongs in section 110.	pnb	
47	Page 8, omitted	Identify the planned width of the benches on the terraced dumps, as well as the number of terraces and the overall dump heights.	pnb	
48	Page 8, para 4	Remove discussion of Bawana pit reclamation from this section, since it belongs in section 110.	pnb	
49	Page 9, para 2	Remove discussion of the Bawana low grade ore stockpiles reclamation from this section, since it belongs in section 110.	pnb	
50	Page 9, Para 3	This section includes a statement that "[t]opsoil was not salvaged resulted from internal miscommunications within CSM is now stored beneath a segment of the adjacent haul road." Is the reclamation timing such that the haul road in this discussion can be reclaimed a year or two prior to final reclamation and the topsoil currently stored beneath it can be removed and stored in a non-compacted state and allowed to rehabilitate for a year or two and used elsewhere on site to replace topsoil used at the location where this stored topsoil was collected?	mpb	
51	Page 10, para 1	The first two lines of the approved text have not been included on the submitted page 10. Include them to the text.	pnb	
52	Page 10, para 2	Remove this paragraph. The requested variance is inconsistent with the reclamation standards of R647-4-111. Also, discussion of reclamation belongs in section 110.	pnb	
53	Page 10, para 3	The reference to Candy B being mined as part of this expansion should be removed or modified, unless pit and dump designs for the Candy B deposit are provided.	pnb	
54	Page 10, para 3	The Division needs additional groundwater information before it can evaluate impacts and pit slope angle variances at the final depth specified. Until information is provided, the final pit depth should be modified to represent the depths informally discussed, or sufficient discussion provided.	pnb	
55	Page 10, para 3	The short access road discussed here already exists within the permitted area of the Hidden Treasure dump, and it doesn't need to be discussed here. It's not very clear.	pnb	
56	Page 10a, para 1	Remove discussion of the Niagara Hill/Bawana dump reclamation from this section, since it belongs in section 110.	pnb	
57	Page 10a, para 2	Remove discussion of the West OK stockpile reclamation from this section (last two sentences of paragraph), since it belongs in section 110.	pnb	
58	Page 10a, para 3	Indicate that the reference to the Maria pit and dump is for the existing, and not the planned expansion of, Maria pit, dump, etc.	pnb	
59	Page 10a, para 4	A quick reference to 110 for any plans to reclaim old disturbances can replace most of this paragraph. Figure 17 doesn't show any area to be reclaimed east of the Bawana dump expansion area, as stated in para 4, but does in the Hidden Treasure area.	pnb	
60	Page 10a, para 5	This paragraph conflicts with other plans for dump reclamation, and is better discussed in 110. Remove or correct it.	pnb	
61	Page 13, para 2 (omitted)	This page should discuss the new Niagara Hill haul road. You don't need to provide as much detail as was provided for the Sunrise haul road.	pnb	
62	Page 14, para 6 (omitted)	The use of magnetite for sub-liner in the ITDF should be discussed. The related current text is incorrect.	pnb	
63		Discuss changes made to the flotation tailings impoundment to increase capacity on top of the impoundment, as shown on the figures.	pnb	

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Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
64	Omission	New facilities associated with the acid leaching or acid storage need to be discussed.	pnb	
65	Omission	Discuss the recent addition to the flotation tailings and the two decant ponds.	pnb	
66		Discuss the boneyard and other disturbances on tops of the old Maria and OK dumps.	pnb	
67	Page 22, para 3	The statement that the only impounded ephemeral drainages are the ITDF drainages is not accurate with the expansion of the Hidden Treasure dump, as shown in various figures. Replace page 22 with updated text.	pnb	

106.3 - Estimated acreages disturbed, reclaimed, annually/sequentially

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
68		The current page omits references to the new areas to be mined. Provide an amended page 24, as well as an up-to-date Table 1.	pnb	

106.4 - Nature of materials mined or processed (including waste materials), and estimated annual tonnages

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
69	Pages 29, 31a, & 31b, Omission	Information about and discussion of the nature of Maria and Niagara Hill materials has not been provided, and some information and discussion will be needed here and possibly elsewhere prior to approval.	pnb	
70	Page 38 (omitted)	The new pits should be incorporated into the discussion.	pnb	

106.5 - Existing soil types, location, amount

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
71	Page 40, para 1	The first sentence was once true, but if there is little soil to salvage in the new Niagara Hill and Hidden Treasure disturbances, it is not for the reason stated. Update the text to identify areas where more or less soil is generally available to salvage.	pnb	
72	Page 42	Include the total soil to be salvaged from the proposed Hidden Treasure dump expansion.	pnb	
73	Page 42	The total topsoil volume for the Hidden Treasure mine and SITLA ore transfer area does not reflect the two sub-volumes. Correct accordingly.	pnb	
74	Omitted	Reference section 106.2, include soil volumes buried in the road as salvaged soil, and report plans in this section and in 110 to salvage, transport and spread the soil during reclamation.	pnb	
75	Page 44, table	The total topsoil volume for the Sunrise mine does not reflect the three sub-volumes. Correct accordingly.	pnb	
76	Page 44a-1, table	The Maria total doesn't match the anticipated average depth of soil for the new disturbance area. Explain and/or correct.	pnb	
77	Omitted	Provide updated volume of soil collected from the initial construction of the ITDF.	pnb	J. 1- 3

106.6 - Plan for protecting & re-depositing soils

Annual section of the	processor and the same of the		Description of the Party of the Control of the Cont	-
Comment	Sheet/Page/			Review
#	Map/Table #	Comments	Initials	Action

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Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
78	Page 45, para 2	Identify the depth(s) of replacement soils.	pnb	

106.7 - Existing vegetation - species and amount

Comment #	Sheet/Page/ Map/Table #	('ommonta	Initials	Review Action
79		Given its slope aspect, discuss any general differences in vegetation and vegetative cover of the Niagara Hill area, as well as any variation in soil types and textures.	pnb	

106.8 - Depth to groundwater, extent of overburden, geologic setting

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
80	Page 48, para 2	Annual exploration progress reports indicate a different number of wet holes in the Maria pit area – more or less than 16, depending on what water is considered significant, and possibly the locations. Adjust the text accordingly	pnb	
81	Page 48, para 2	Discuss the geologic setting as it applies to groundwater in the Maria pit area. Water elevations are more meaningful than water depths when some of the holes were drilled from the pit bottom. Additional hydrologic and geochemical information about the Maria pit area will be needed in order for the Division to evaluate the potential for impacts to area groundwater and, potentially, for the Division to approve mining at the full pit depth which would be below groundwater elevations.	pnb	
82	Page 48	Please include discussion in the text on the sumps that will be maintained for Maria pit dewatering.	lah	
83	Page 48	Currently the new paragraphs split the Sunrise-related paragraphs. Move the new paragraphs below the discussion of groundwater in the Sunrise area.	pnb	
84	Page 49, para 3	Page 49 still references that WW-6 is screened in the "dolomite" layer. Correct this section to be consistent with other discussions in the Notice, and reference the explanation of the rock type in 106.8.	aa	
85	Page 51 (omitted)	Discuss the geologic setting of the Maria and Niagara Hill orebodies.	pnb	

106.9 - Location & size of ore & waste stockniles, tailings & treatment ponds, and discharges

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
86	Page 54, para 2	Change the location of the placed material east of the existing Bawana dump, since material is already in that area. (To be placed on existing Bawana dump?)	pnb	
87	Page 54, para's 1-2	As an example of how the new pits haven't been included in the Notice, either discuss the waste rock and ore from the two new deposits, consistent with the discussion of the material from other deposits, or modify the text to be less pit-specific, as appropriate.	pnb	
88	Page 54, para 3	Update this paragraph to indicate that no additional tailings are being placed in the flotation tailings impoundment, unless there is a need for whatever limited amount has already been approved by Division of Water Quality.	pnb	

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Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
89		Identify the amount of material extracted, moved or proposed to be moved by past operations (ore, waste, tailings, etc).	pnb	
90		Identify the amount of material extracted, moved or proposed to be moved by the proposed Maria and Niagara Hill mining operations (ore, waste, tailings, etc).	pnb	

R647-4-107 - Operation Practices

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
91	Page 58, Table	There is already a table labeled Table 1. Rename as needed.	pnb	
92	Page 58, Table	Consolidate the two entries for sulfuric acid.	pnb	
93	Page 60 (omitted)	Revise the text of this page to be consistent with the proposal to fully backfill the Bawana pit.	pnb	

R647-4-109 - Impact Assessment

General Comments

Comment #	Sheet/Page/ Map/Table #	Commonto	Initials	Review Action
94		Add the Crossroads permit to this list, as well as the most recent EA. (There isn't a section 109.6 in the rules, so this permitting discussion probably fits better in the introduction, where past UDOGM permitting is discussed.)	pnb	

109.1 - Projected impacts to surface & groundwater systems

Comment #	Sheet/Page/ Map/Table #		Initials	Review Action
95	Page 63 - 64	Identify surface water impacts associated with the new pits and associated materials. Consider generalizing at least some of this section where appropriate.	pnb	
96	Omitted	Identify groundwater impacts associated with the new pits and associated materials.	pnb	
97	General	This section may need to be updated once 106.4 is complete.	pnb	

109.3 - Projected impacts on existing soils resources

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
98	Page 68	Impacts to soil and plant resources from the two new pits and dumps should be identified. See the related comment in the General Comments section.	pnb	
99	Page 68	Provide the biological survey for the entire project area.	pnb	

109.4 - Projected impacts on slope stability, erosion control, air quality, public health and safety

Comme	ent Sheet/Page/ Map/Table #	Comments	Initials	Review Action
100	Page 70	Provide the geotechnical evaluation report for the Sunrise pit.	pnb	

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Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review
101	Page 70, para 2	Remove the "if necessary" phrase in this paragraph, since this text was changed unknowingly during the previous approval.	pnb	
102	Page 70	Geologic cross sections for new pits should be referenced here.	pnb	
103	Page 70	The text should refer to the geologic map and cross sections for the two new pits. The text as written, should be a "condition" of the permit. A deadline should be added to "condition." The Maria and Niagara Hill pit geotechnical report will need to be provided within 60 days of approval. Add this timeline to the text.	lah	
104	Page 70- 71	The discussion of waste dump slopes is here inconsistent with the proposed plans in other areas of the Notice. Correct accordingly.	pnb	
105	Page 71, para 6	The discussion about pit impounding runoff should be updated, as it is incorrect and incomplete.	pnb	
106	Page 72, para 4	The statement that revegetation will provide erosion control on dump surfaces is only partially true considering the dump construction proposed in this submittal, and the statement needs to be re-written to address erosion control with the new dump designs.	pnb	

R647-4-110 - Reclamation Plan

110.1 - Current & post mining land use

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
107	para 1	The statement that the area provides "limited" habitat for wildlife could be seen as contradictory to the discussion of "high priority year long" antelope habitat in 109.2. Compare to the pertinent NEPA documents and modify as needed for consistency.	pnb	
108	Page 75,	To include a discussion of the 1998 archaeological inventory without discussing more recent inventories provides an incomplete picture. Update or remove specific text.	pnb	

110.2 - Reclamation of roads, highwalls, slopes, impoundments, drainages, pits, piles, shafts, adits, etc

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review
109	Page 77, para 2	Correct the text, since 37 degrees does not equal 1.5H:1V slopes.	pnb	
110	Page 77, para 2	Identify the height(s) of the individual dump lifts and the offset (bench) widths. At some point, the dump lift height may be too high for the Division to approve.	pnb	
111	Page 77, para 2	Remove the statement "if necessary", since topsoil replacement is required by rule, unless variances are requested and approved.	pnb	
112	Page 79, para 4	The statement that the embankment slopes (2H:1V) are too steep for topsoil placement is technically incorrect, since it could be pushed down the slope. Explain in more detail.	pnb	
113	Page 79, para 5	It is unacceptable to the Division to write in the NOI "Highwalls will be left because of limited space and safety issues." Rule R647-4-109.4 specifically deals with safety and highwall slope stability.	lah	
114	Page 79a, para 2	Considering the high priority that the company and the BLM place on avoiding halogeton infestations, add a statement that areas of pre-CSM disturbance that are already vegetated (as are some significant areas) will not be re-disturbed.	pnb	

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Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
115	Page 79a, para 2	Some of these areas were recently disturbed, are part of active mining operations, and should be shown as such. Reclamation is required for these areas regardless of intent.	pnb	
116	Page 80,	Remove duplicate reference to the Bawana pit and add the new pits, or remove specific references and refer to the pits in general, unless pit-specific treatment is needed.	pnb	***************************************
117		Identify the minimum amount of topsoil that will be placed on the ITDF.	pnb	

110.4 - Description or treatment/location/disposition of deleterious or acid forming materials, including map

	Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
-	118	General	This section may need to be updated once 106.4 is complete.	pnb	

110.5 - Revegetation planting program

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
119		The text suggests that the seed mix is comprised of exclusively natives, but some non- natives are also included (justifiably) in the seed mix, such as crested wheatgrass.	pnb	

<u>R647-4-112 - Variance</u> (List all variances requested and make a finding if approving.)

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
120	Page 84, omission	The reclamation plan to not regrade dump slopes requires a variance from rule R647-4-111.6. As required by rule, identify the rule to which a variance is requested, describe the area(s) to be affected by the variance, provide justification for the variance, and identify alternate methods or measures to be utilized. Refer to pertinent sections of 110.	pnb	
121	Page 84, omission	Briefly discuss the implications of a variance to R647-4-111.6 on what would otherwise be required topsoil redistribution on slopes (R647-4-111.12). A variance to 111.12 is effectively granted by granting a variance for 111.6.	pnb	
122	Page 84	A geomechanical report is needed for the variance.	lah	
123	Page 84, para 1	Remove the date information from the title of 111.7 Highwalls, since variances for three of the five pits weren't approved in 2012.	pnb	

R647-4-113 - Surety

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
124	Omission	Reclamation costs for the tops of the OK dumps, OK stockpile, and Maria dumps (unless covered by the Maria pit expansion) need to be included in these calculations.	pnb	
125	Omission	Calculate the reclamation cost of the new office and associated facilities shown south of the acid storage.	pnb	
126	Omission	Calculations of the cost to place soil on the ITDF are missing. Include them in the revised calculations.	pnb	
127	Omission	New facilities associated with the acid leaching or acid storage need to be included.	pnb	ejac i i i i i
128	Omission	Include the Mary I revegetation costs, unless upcoming field inspections give reason to think it can be released immediately.	pnb	